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| APPLICATION NO. | FILING DATE | FIRST NAME OF INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/753,496 | 01/02/2002 | Jeffrey H. Sherman | AVISTA 209-1076 | 2763 |

THOMASON, MOSER & PATTERSON
N. ALEXANDER NOLTE
3040 POST OAK BLVD
SUITE 1500
HOUSTON, TX 77056

| EXAMINER | |
|---------------------------|--------------|
| NORTON, NADINE GEORGIANNA | |
| ARTICLE | PAPER NUMBER |
| 1764 | |

DATE MAILED: 12/17/2002

Please find below and or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753 496

Examiner

Nadine Norton

Applicant(s)

SHERMAN ET AL

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133)
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 4-9, 11-16, 18-31, 33-38, 40-43, 45-53 and 55-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 23-31, 33-38, 40-43 and 45-49 is/are allowed.
- 6) ☐ Claim(s) 4, 5, 7-9, 11-16, 18-22 and 50-52 is/are rejected.
- 7) ☐ Claim(s) 6 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1, 1, 1 6) ☐ Other

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a)

Claims 4, 5, 11, 12, 15, 16, 18, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Williams et al. (6,174,431).

The reference of Williams et al. (6,174,431) discloses a method for purifying used oil. See abstract, lines 1-5. The process involves mixing a phase transfer agent, such as a quaternary ammonium hydroxide, with the oil in the presence of a base such as sodium hydroxide. See abstract, lines 1-5, column 9, lines 20-45, and column 20, lines 4-12. Next, the mixture is contacted with a solvent, which can be recycled. See column 10, lines 20-35 and column 11, lines 35-41. The impurities are separated by extraction/distillation. See column 10, lines 45-55 and column 11, lines 35-45.

The process of Williams et al. (6,174,431) anticipates applicants' process because it discloses essentially the same base phase transfer agent mixing and separation steps claimed by applicants.

Claim Rejections - 35 USC § 103

Claims 7-9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al.(6,174,431).

See teachings of Williams et al.(6,174,431) above.

Several differences are noted between the reference of Williams et al (6,174,431) and applicants' claimed invention. It is noted that the reference of Williams is silent regarding the temperature/pressure at which the distillation separation takes place. In addition, the reference does not disclose applicants' claimed amount of phase transfer agent.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to select distillation conditions that would effectively separate the contaminants from the purified composition of Williams, including the specific conditions claimed by applicants, because selecting distillation conditions to obtain desired cuts is within the level of ordinary skill. It is known to select distillation conditions to obtain desired cuts.

In addition, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ any amount of phase transfer agent to effectively accomplish the process of Williams et al.(6,174,431), including the specific amounts claimed by applicants, because it has been held that there is no invention where the difference in proportions is not critical and was ascertained by routine experimentation because the determination of workable ranges is not considered inventive. In re Swain and Adams, 70 USPQ 412 (CCPA 1946).

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Claim Rejections - 35 USC § 103

Claims 21, 22, 50-52, and 55-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams et al. (6,174,431) in view of Habiby et al. (4,021,333).

See teachings and statements of obviousness with respect to Williams et al. (6,174,431) above.

A difference is noted between the reference of Williams et al. (6,174,431) and applicants' claimed invention. The reference is silent about a solvent in the form of N,N,-dimethylformamide.

Since the reference discloses that other solvents can be combined with the hydrocarbon solvent (column 10, lines 34-40), it would have been obvious to one of ordinary skill in the art at the time the invention was made to select N,N,-dimethylformamide as a solvent because the reference of Habiby et al. (4,021,333) illustrates that dimethylformamide is a suitable extraction solvent for extracting impurities from oil (See column 3, line 5).

Allowable Subject Matter

Claims 6 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 23-31, 33-38, 40-43, and 45-49 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

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The prior art does not disclose or suggest a process for purifying a distillate or used motor oil involving simultaneous treatment with applicants' combination of ethylene glycol phase transfer agent and base.

Response to Arguments

Applicants' arguments filed 11-4-02 in paper no.17 and applicants' arguments in the interview of 10/30/02 are sufficient to overcome the previous rejection over Habiby et al.(4,021,333). In addition, applicants' terminal disclaimer filed 11-4-02 overcomes the previous double patenting rejection.

Note: The examiner's indication of allowability on 11-21-02 during a request to complete an examiner's amendment fixing the dependency of claims 14 and 42 is withdrawn in view of the IDS filed 11-4-02.

Applicants' submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 10-28-02 prompted the new ground(s) of rejection presented in this Office action. (Case 6,174,441 is the US counterpart of reference filed in the IDS). Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nadine Norton whose telephone number is 703-305-2667. The examiner can normally be reached on Monday through Thursday from 8:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 308-0661.

N.N.

November 25, 2002

NADINE NORTON
PRIMARY EXAMINER